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Public Information Meeting

New Champlain Bridge Corridor Project

Centre socioculturel de Brossard – 14 October 2015

Meeting Objective

To provide an overview

of the New Champlain Bridge Corridor Project

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including initial work in Brossard, anticipated impacts

and mitigation measures

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and to answer your questions.

Agenda

- Welcome
- Introduction of the team
- Project overview
- Overview of our technical solution
- Overview of the work
  - Description of the work
  - Anticipated impacts
  - Mitigation measures
- Communications
- Question period

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PAUL LEDUC

Mayor of Brossard

Welcome

brossard
URBAINE | CONTEMPORAINE | OUVERTE SUR LE MONDE

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DANIEL GENEST

COORDINATION DIRECTOR

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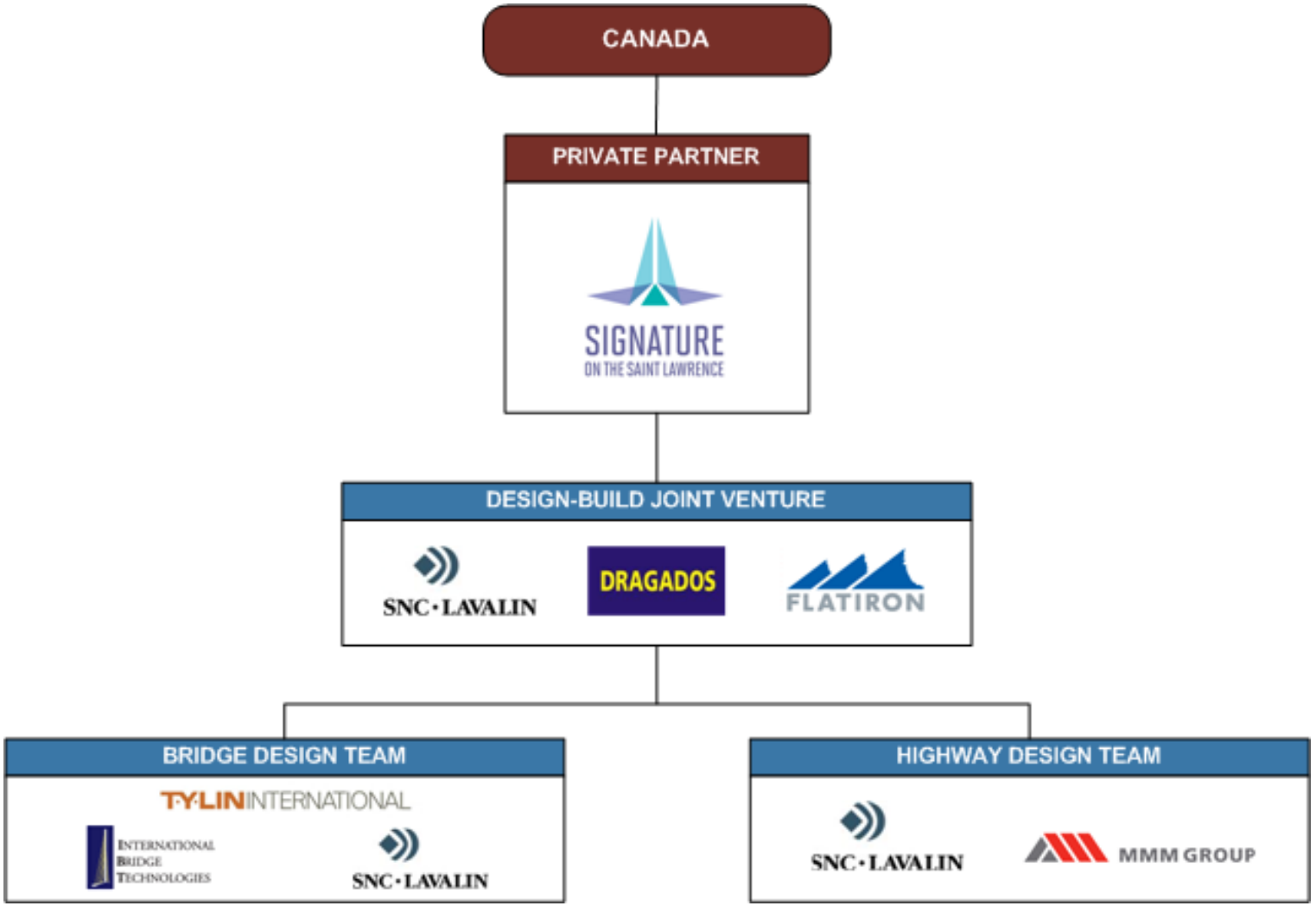
MARTHE ROBITAILLE

ENVIRONMENT DIRECTOR

SIGNATURE ON THE SAINT LAWRENCE

Partners


CANADA
PRIVATE PARTNER
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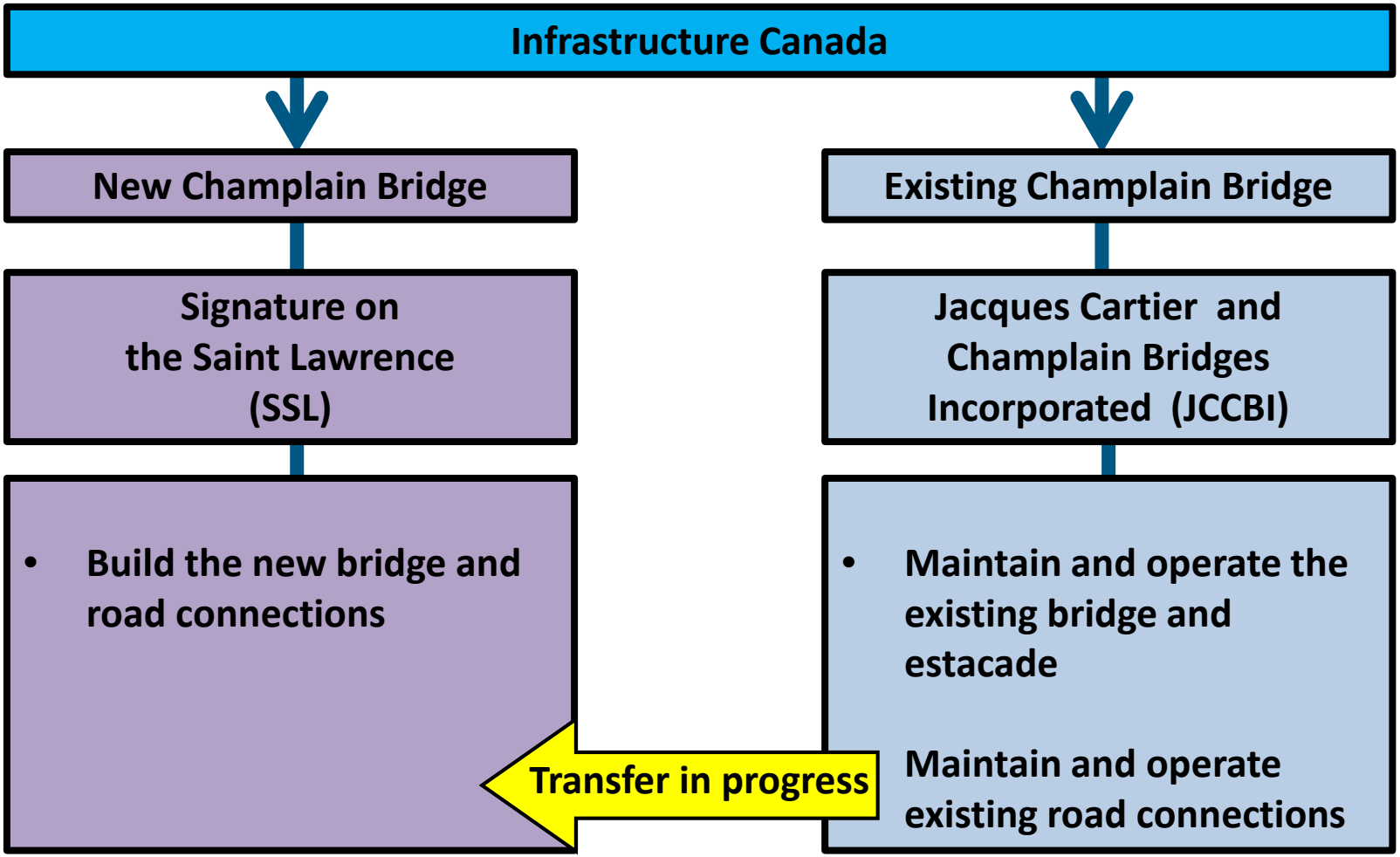
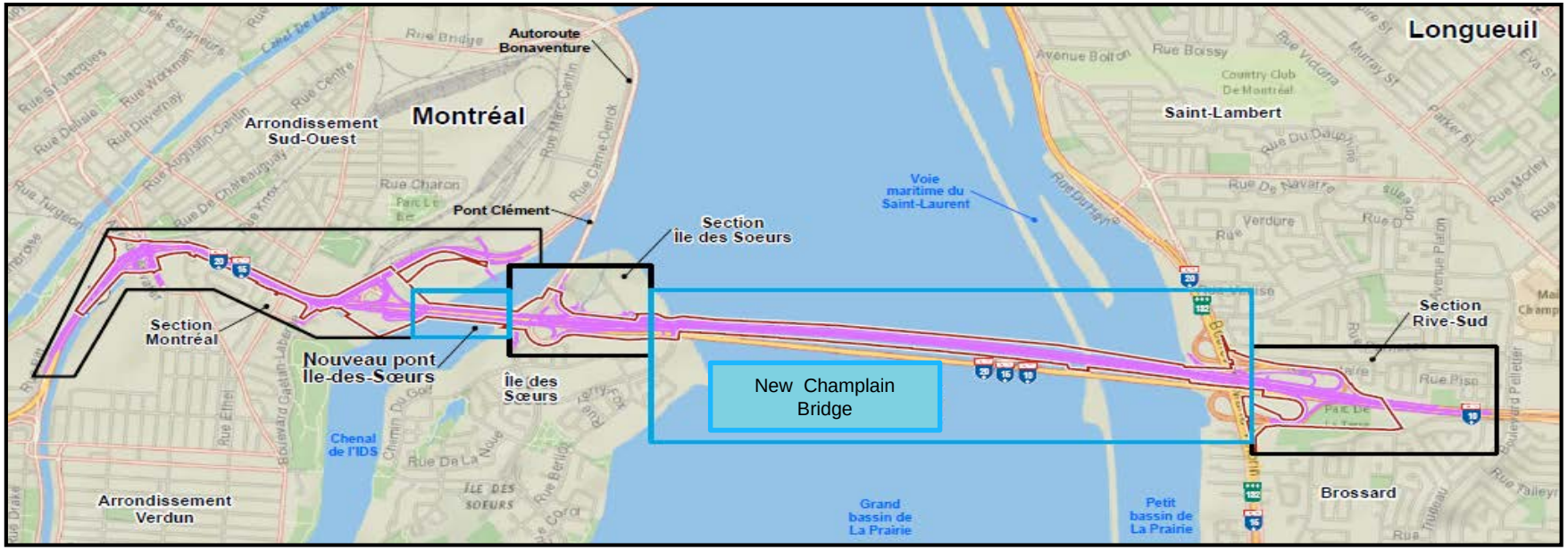
DESIGN-BUILD JOINT VENTURE
SNC·LAVALIN
DRAGADOS
FLATIRON
BRIDGE DESIGN TEAM
TYLIN INTERNATIONAL
INTERNATIONAL BRIDGE TECHNOLOGIES
SNC·LAVALIN
HIGHWAY DESIGN TEAM
SNC·LAVALIN
MMM GROUP

Two Complementary Mandates : 2015 to 2019



General Project Overview

- One of the **largest infrastructure projects** in North America
- The project covers:
  - The new Champlain Bridge, length of 3.4 km
  - The new Nuns' Island Bridge, length of 500 m
  - Improvements to the approaches (Hwy 15 in Montréal and Hwy 10 in Brossard) over a length of 4.5 km



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Bird’s Eye View

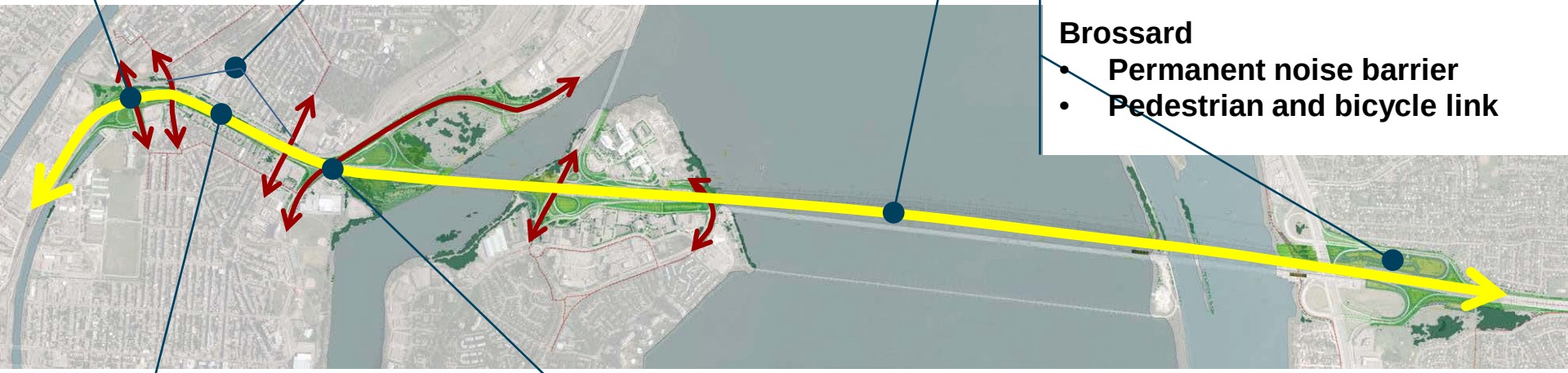
Major Improvements to the Current Situation

Atwater Avenue
- Improved Hwy 15 access

LaSalle Blvd. and Wellington Street
- Improved pedestrian links

New bridge
- Bridge of international stature
- Dedicated public transit corridor
- Pedestrian and bicycle link

Brossard
- Permanent noise barrier
- Pedestrian and bicycle link



Hwy 15
- Increased number of lanes

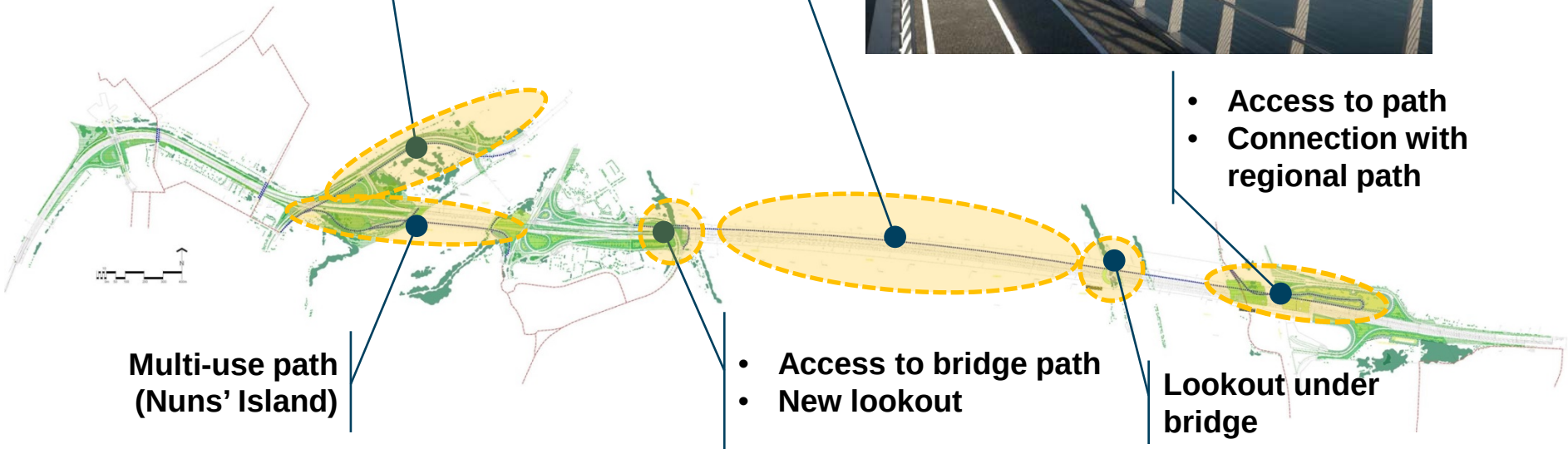
Gaétan-Laberge Blvd.
- Improved Hwy 15 access
- New access to downtown, in keeping with the city's long-term vision

Multi-use Path : A Unique Experience

New bicycle link to downtown

Multi-use path (new bridge)

- Access to path
- Connection with regional path



Multi-use path (Nuns' Island)

- Access to bridge path
- New lookout

Lookout under bridge

Project Challenges

- Large-scale, complex site
  - Urban setting
  - Close proximity to citizens
  - Over water
  - Winter conditions
  - Environmental considerations
- Numerous partners and stakeholders : importance of providing information well ahead of time to ensure proper collaboration and coordination
- Construction of Champlain Bridge : 42 months (now 37.5 months remaining)

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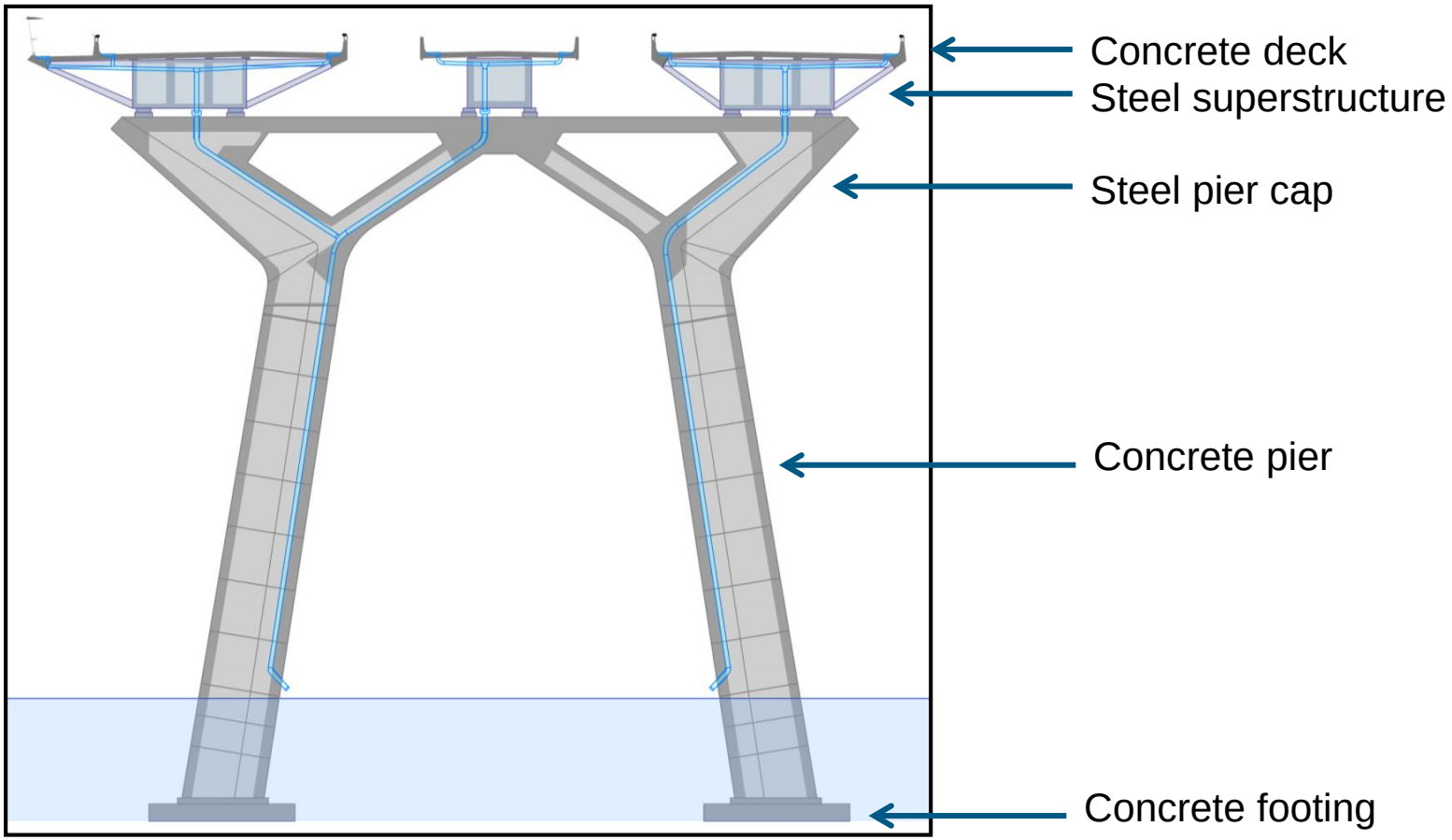
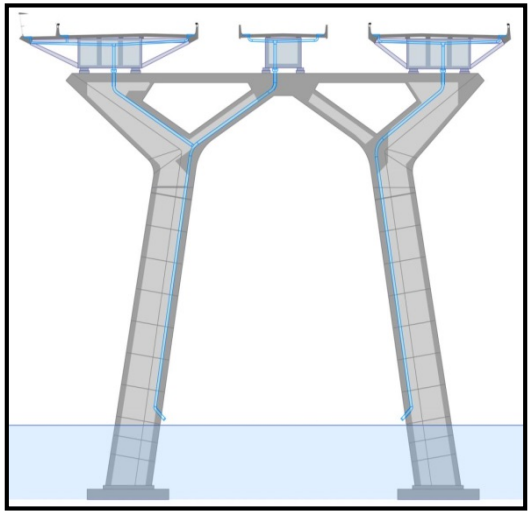
View from South Shore

Bridge Components



Chosen Approach

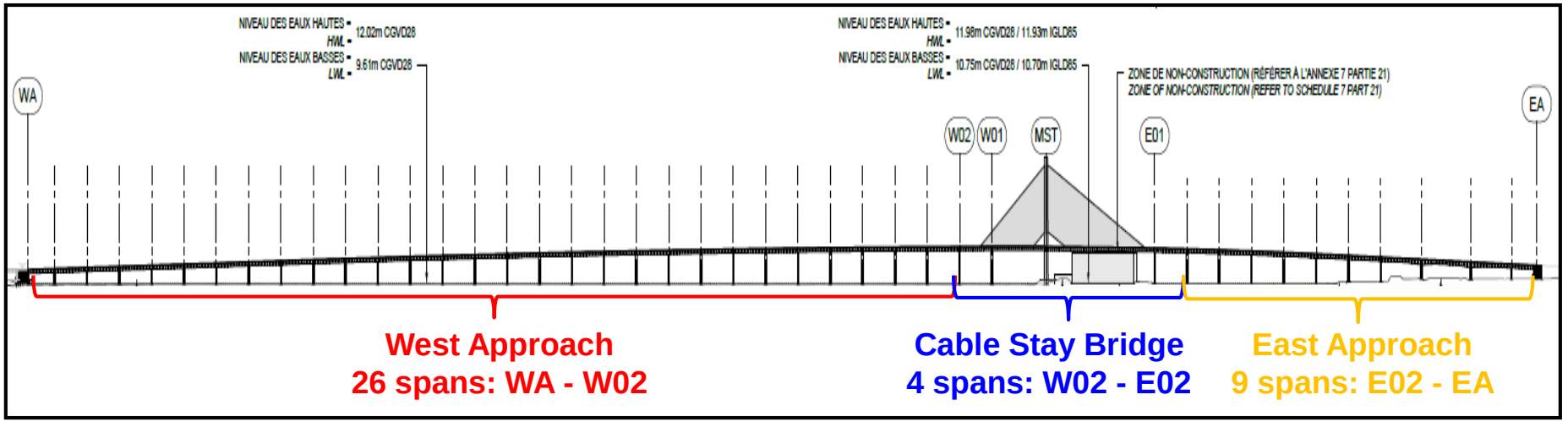
- Several solutions considered

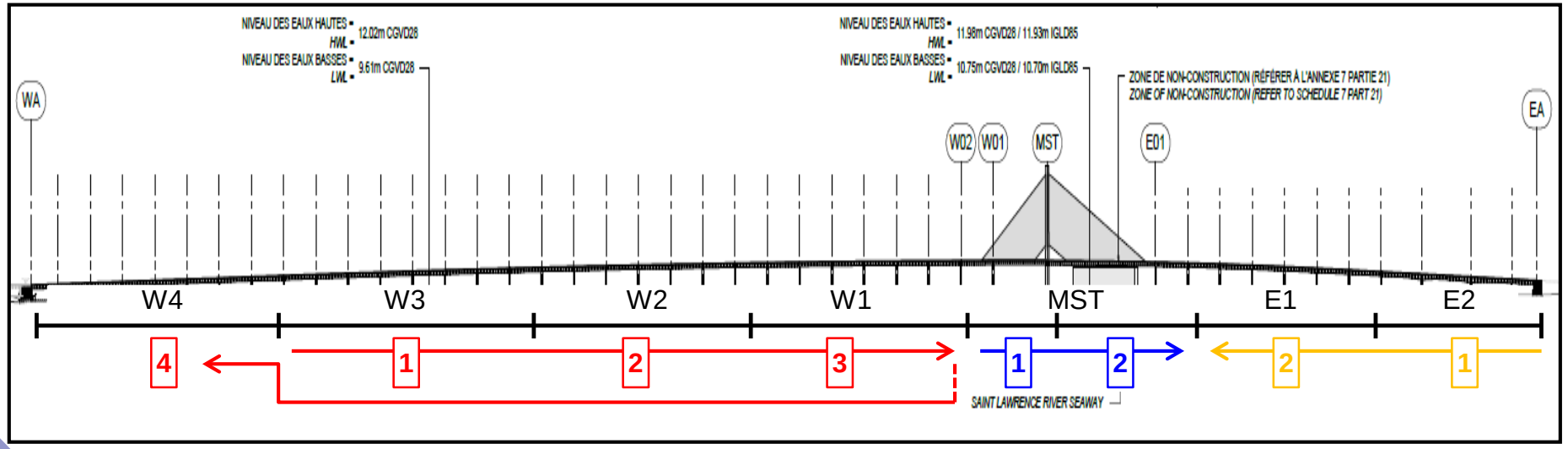


- Three important considerations
  - Demanding schedule
  - Limiting our dependence on the road network
  - Minimizing our dependence on deliveries via the St. Lawrence River : strong current and limited depth

- Chosen approach
  - **Maximize prefabrication** of concrete and steel components, **on and off site**
  - **Assemble** components **on the site**

Sectors and Sequence of Construction





Bridge Schedule

- Construction of three temporary jetties : June to November 2015
- West and East Approaches
  - Prefabrication operations : November 2015 to April 2017
  - Maritime excavation : November 2015 to September 2016
  - Footings, piers and pier caps : February 2016 to July 2017
  - Superstructure and deck : July 2016 to May 2018
  - Finishing works : June 2017 to August 2018
- Cable Stay section
  - Main pylon : October 2015 to June 2017
  - Back span : November 2015 to March 2017
  - Main span : March 2017 to June 2018
  - Finishing works : April 2017 to September 2018

Corridor Schedule

- Hwy 15 Sector (Montréal)
  - New Nuns' Island Bridge : October 2015 to September 2017
  - Southbound direction : October 2015 to July 2017
  - Northbound direction : July 2017 to November 2018
  - Final connection : May to October 2019
- Hwy 10 Sector (South Shore)
  - Temporary works : September 2015 to June 2016
  - Reconfiguration of access to new Champlain Bridge : June 2016 to June 2018
  - Final connection : October 2018 to October 2019

Bridge commissioning at the end of 2018,
with all road work completed by fall 2019

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Overview of the works

Major Project Activities since our Selection in mid-April

- Major communication effort with elected officials, municipal teams, citizens and businesses
- Detailed design on four fronts
- Construction of large-scale temporary structures (to support construction of the new Champlain Bridge): two large jetties essentially completed and a third on its way
- Establishment of site facilities in the Pointe Nord sector of Nuns' Island and south of the Gaétan-Laberge interchange
- Planning of construction activities for permanent works: new Champlain Bridge and road connections

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West Jetty : Nuns' Island

- Area for pre-casting concrete footings and steel assembly
- Dock for mooring vessels for use on the river
- Dry construction of western portion of new Champlain Bridge

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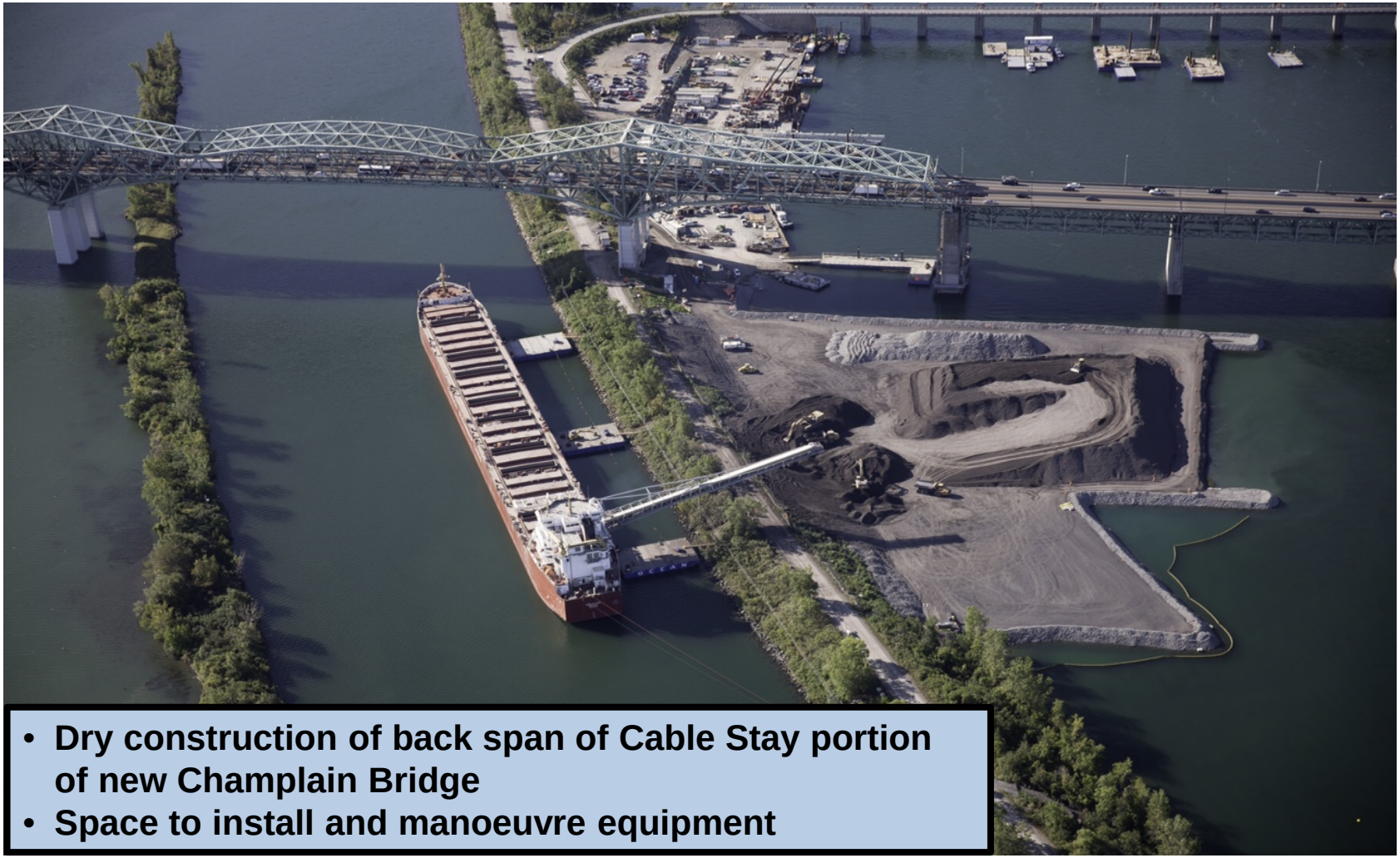
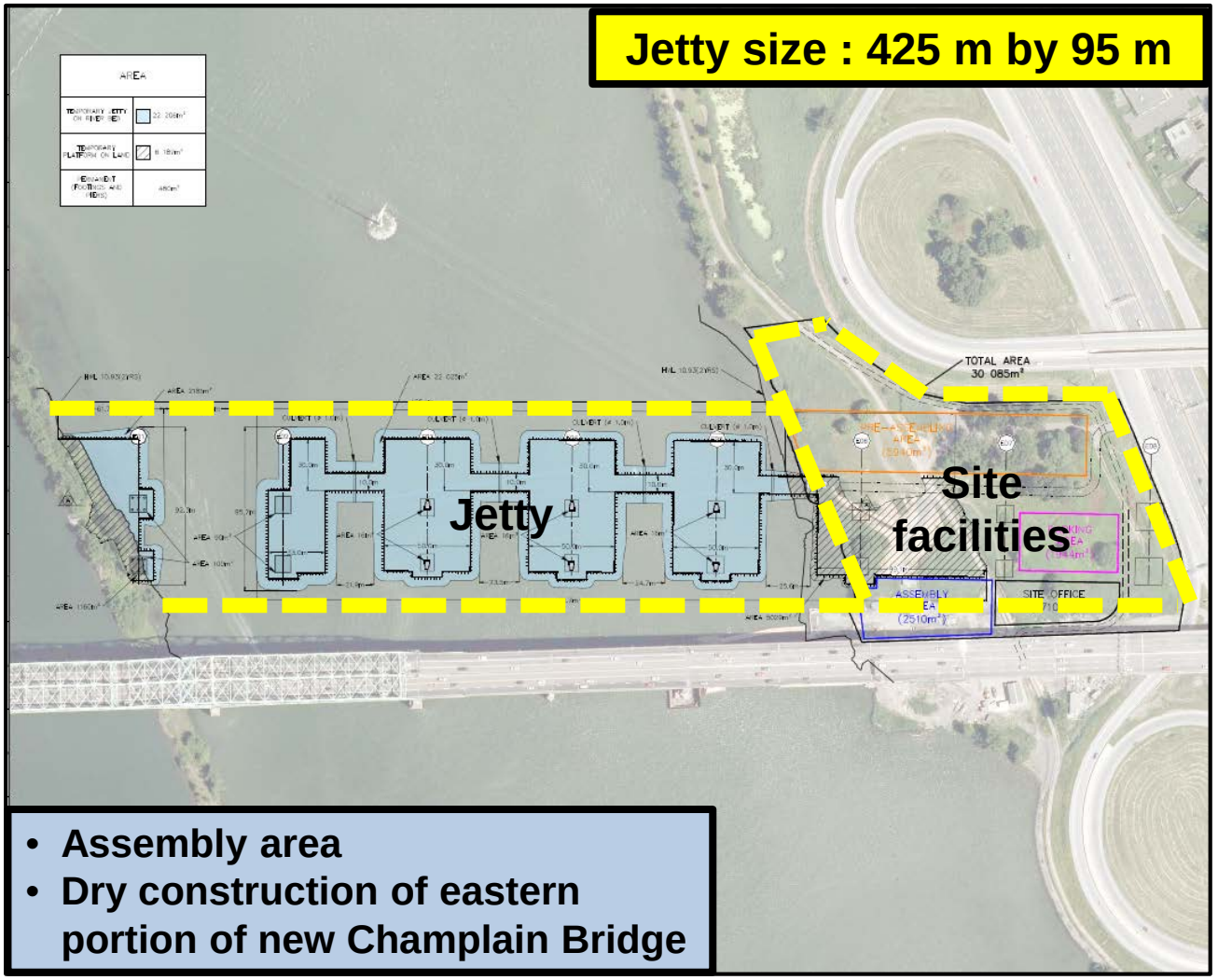
Cable Stay Jetty : Seaway Dike



- **Dry construction of back span of Cable Stay portion of new Champlain Bridge**
- **Space to install and manoeuvre equipment**

East Jetty : South Shore



- Assembly area
- Dry construction of eastern portion of new Champlain Bridge

East Jetty : Construction

- **Preparatory work completed / in progress:**
  - Tree removal
  - Construction of an acceleration lane for trucks exiting the site onto Highway 132 West service lane
  - Access road to the river
- **Estimated volume of jetty** : 90 000 m³
- **Planned timetable of jetty construction :** 15 October to end November 2015
- **Hours :** 6:30 p.m. to 5 a.m.
- **Truck traffic :** On average, 250 trips per evening / night to unload stone

Hwy 10 Sector : Fall 2015

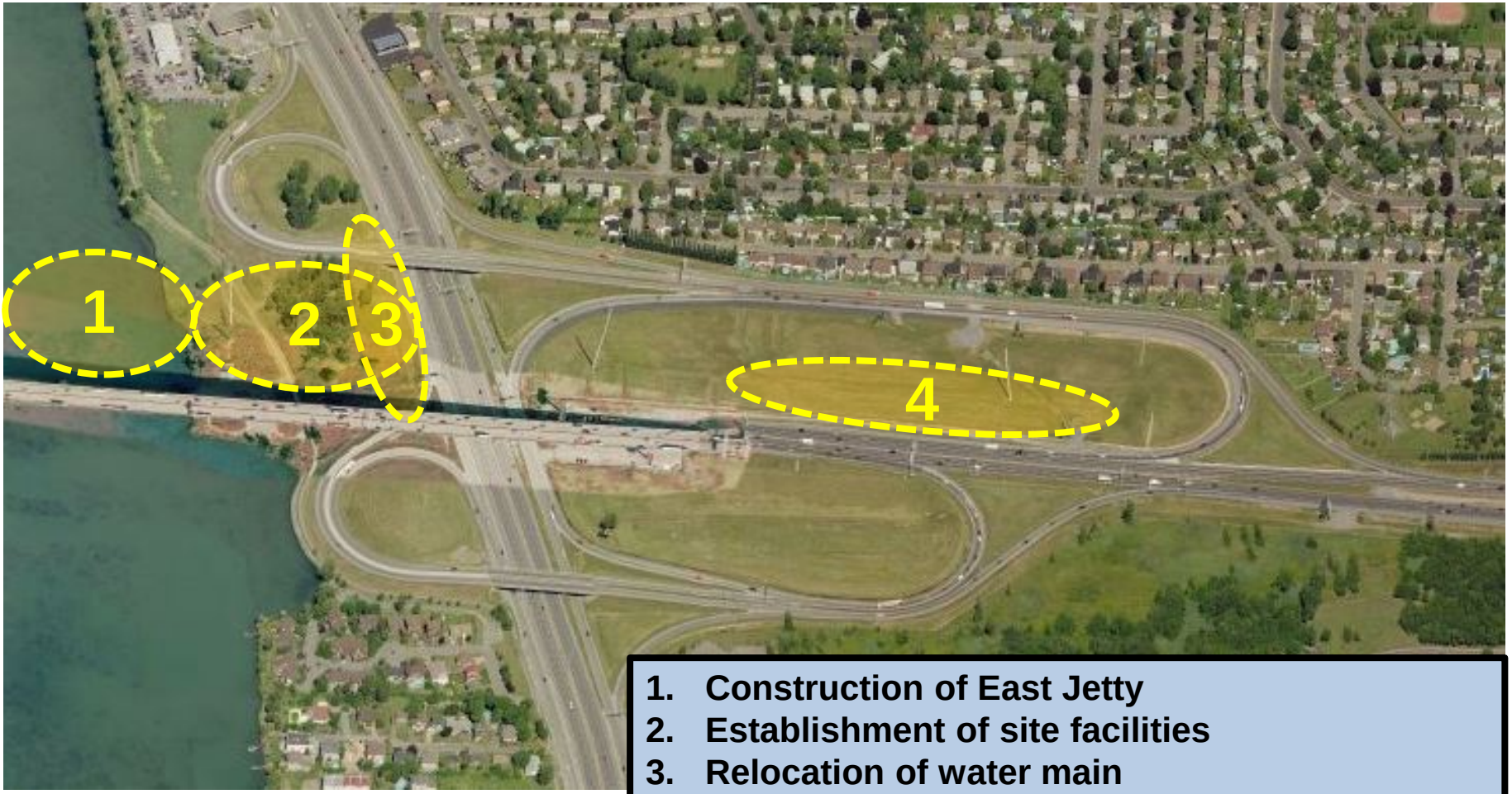
Key activities :

- Construction of East Jetty
- Establishment of site facilities (between Highway 132 and the river, under axis of new bridge)
- Relocation of water main (between Highway 132 and the river, under axis of new bridge)
- Backfilling of East approach to new bridge

Approach :

- Daytime work, ***to the extent possible***, when the impacts (especially noise levels) are significant
- Nighttime work, ***to the extent possible***, when the impacts on daytime traffic are too significant

Hwy 10 Sector: Fall 2015



1. Construction of East Jetty
2. Establishment of site facilities
3. Relocation of water main
4. Backfilling of East approach to new bridge

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Site Impacts and Mitigation Measures

- Road, bicycle and water traffic
- Noise
- Air quality
- Green spaces

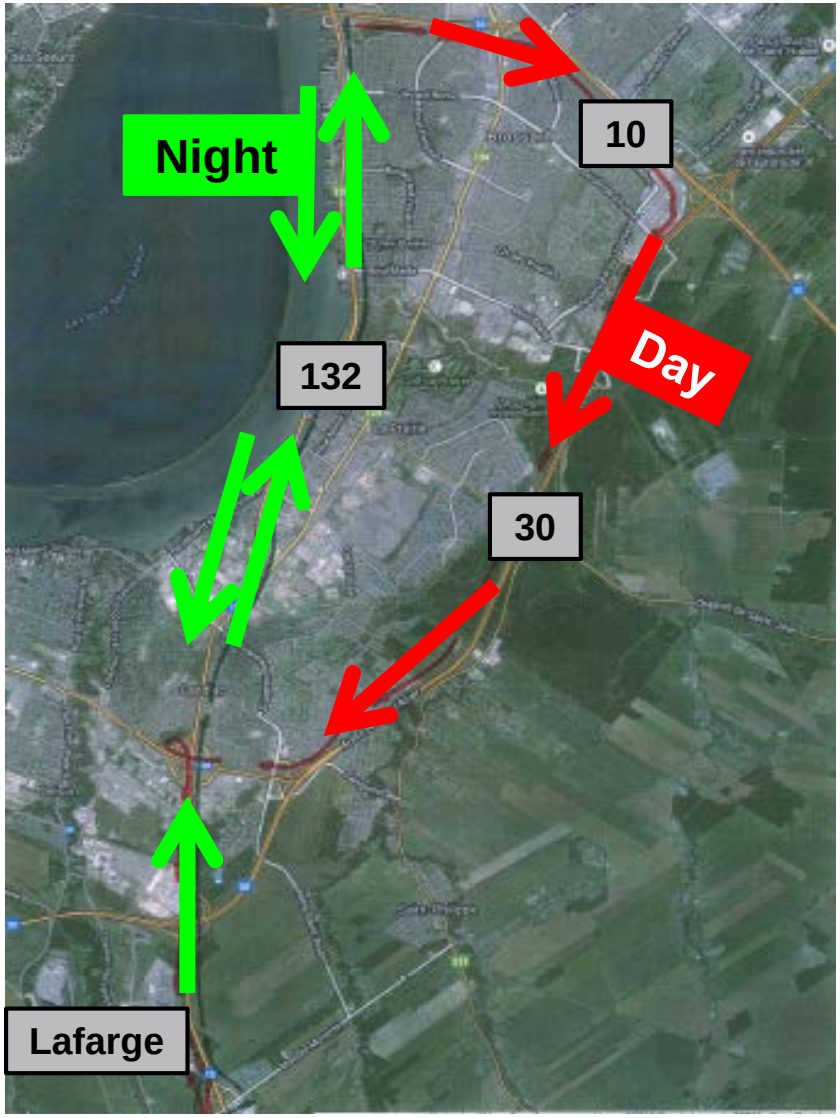
Road, Bicycle and Water Traffic Management

- Impact of work :
  - Reconfiguration of Highway 132 West at Champlain Bridge
  - Heavier truck traffic
  - Rerouting of La Riveraine bike path
  - Water traffic in Lesser La Prairie Basin

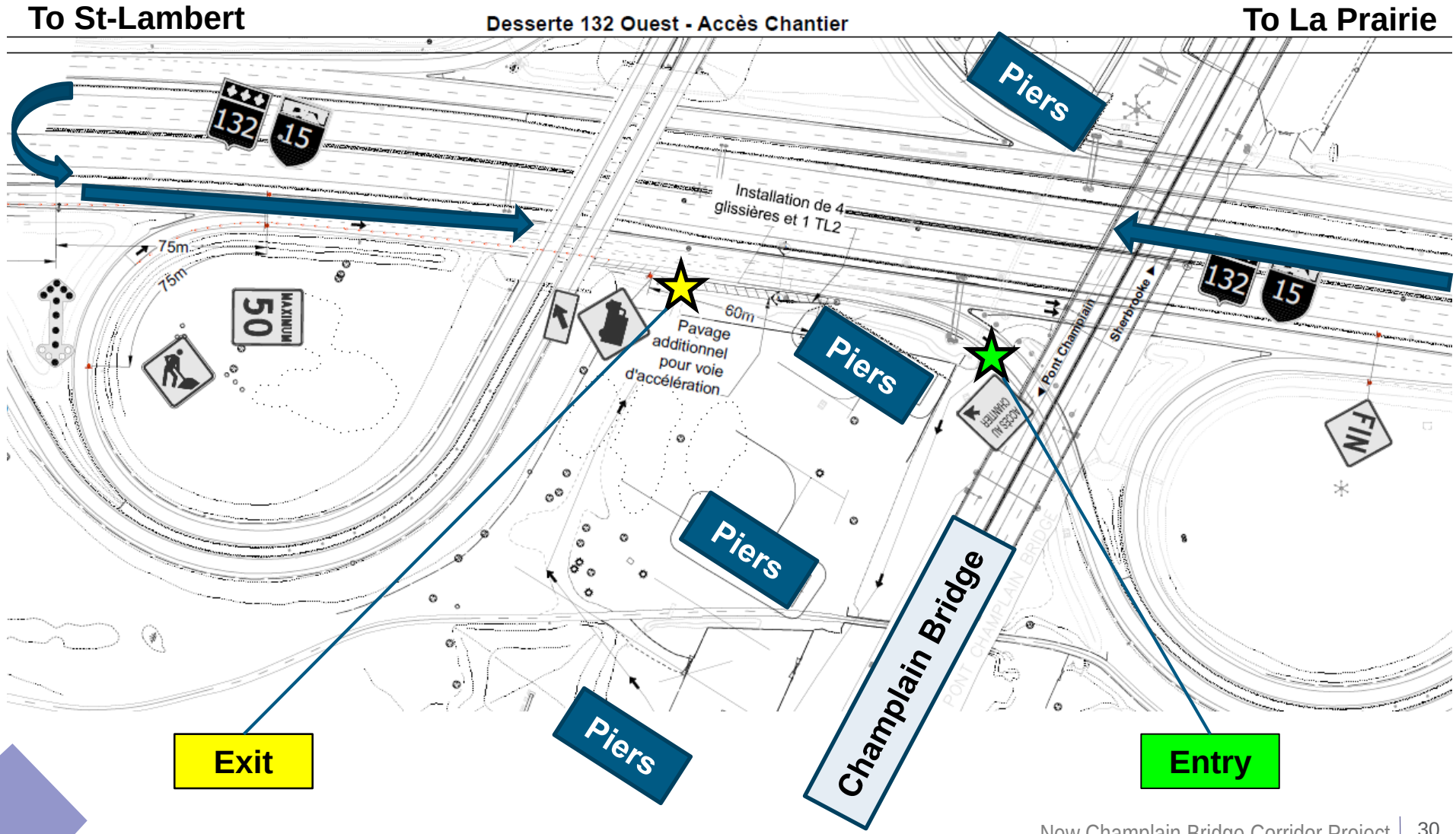
- Our imperative --- to create and maintain safe conditions for everyone :
  - Residents and businesses
  - Road network users, cyclists and pedestrians
  - Workers

- Minimize impacts as much as possible

Truck Delivery of Stone

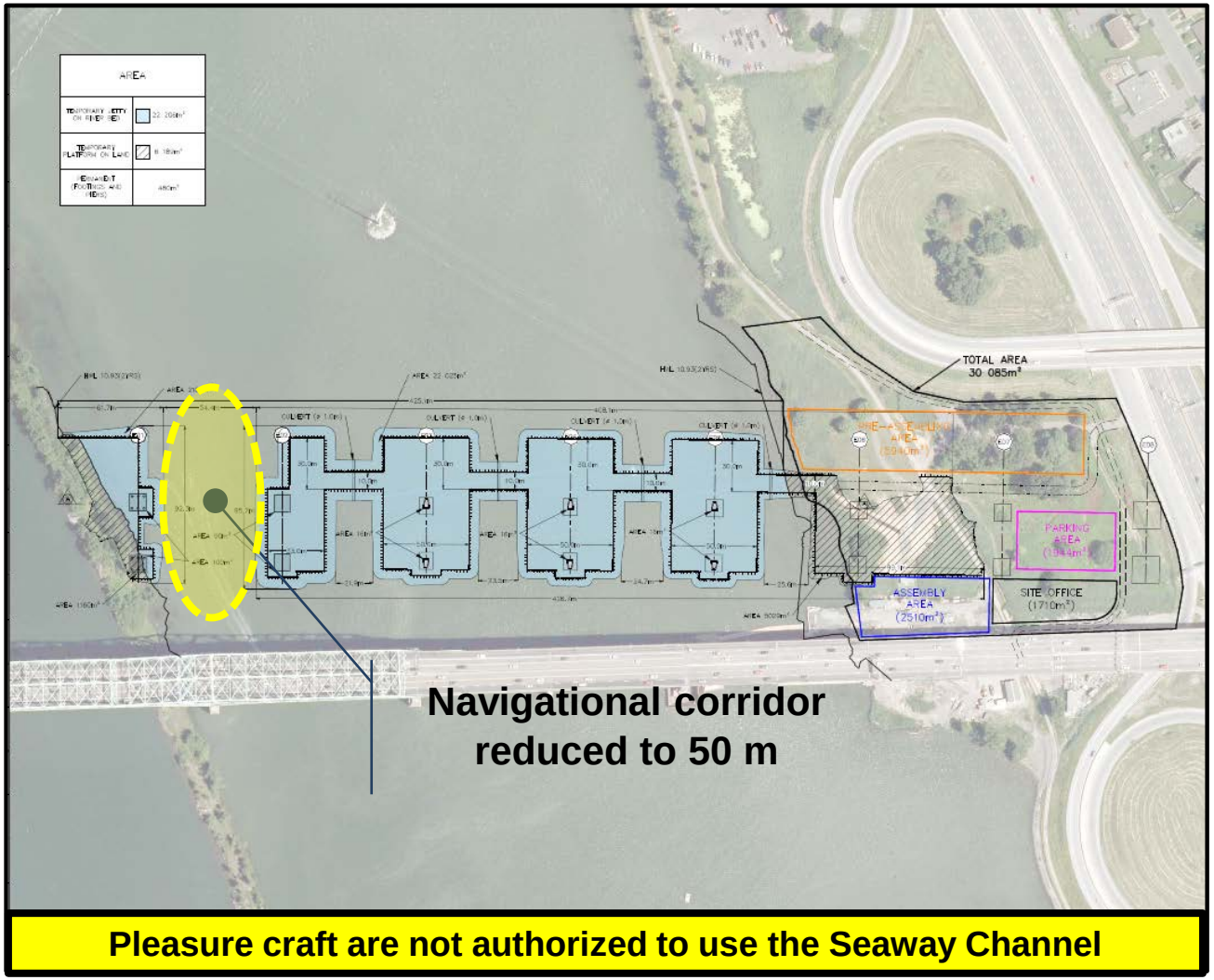


Site Access


To St-Lambert
Desserte 132 Ouest - Accès Chantier
To La Prairie
Piers
Installation de 4 glissières et 1 TL2
75m
75m
MAXIMUM
50
60m
Pavage additionnel pour voie d'accélération
Piers
132
15
132
15
Pont Champlain
Sherbrooke
ACCÈS AU CHANTIER
FIN
Piers
Piers
Champlain Bridge
Exit
Entry

Rerouting of the Bike Path
La Riveraine

Disruption to Navigation : Lesser La Prairie Basin



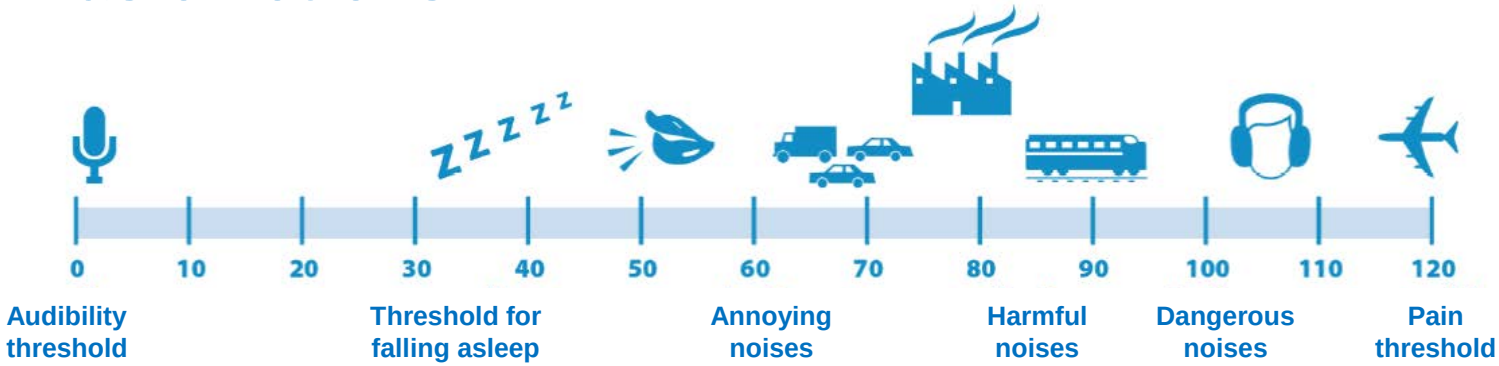
Pleasure craft are not authorized to use the Seaway Channel

Noise Management

NOISE CRITERIA

- **Day (7:00 a.m. to 7:00 p.m.) : 75 decibels or 5 decibels above ambient noise level**
- **Evening and night (7:00 p.m. to 7:00 a.m.) : 5 decibels above ambient noise level**

Basic notions



3 dba	→	Barely perceptible change
5 dba	→	Perceptible change
10 dba	→	Doubles or halves sound intensity
55 dba and +	→	Recognized as an acceptable sound level

Sound levels do not increase linearly

Doubling the sources of noise ≠ doubling the level of noise

Source: MTQ Turcot Project Presentation 18 November 2014

Noise Management

Ambient noise levels (May 2015) / estimated (October 2015)

Activity	Work period (D / E / N)	Most exposed sensitive zone	Ambiant noise in dba (D / E / N)	Criterion in dba (D / E / N)	Estimated noise in dba	Specific mitigation measures
Construction of the East Jetty and East Approach site facilities	D / E / N	B2	62 / 62 / 58	75 / 67 / 63	67	No*
Relocation of water main	D	B2	62	75	73	No
Construction of temporary wall – East Abutment	D	B2	62	75	82	Yes
East Approach earthworks	D	B3	58	75	68	No
Crushing	D	B1	60	75	68	No

* The elevated structures of Route 132 and the Champlain Bridge act as acoustic screens.

Noise Management

- General mitigation measures :
  - Use variable-intensity back-up alarms
  - Organize traffic flow to minimize backing up
  - Minimize production of impact noise (truck tailgates)
  - Make site superintendants and employees aware of the importance of respecting the noise mitigation measures

- Specific mitigation measures:
  - Modify works methods
  - Install temporary acoustic screens
  - Monitor noise levels during construction
    - Check effectiveness of screens when critical activities start
    - One to two times every two weeks
    - Check when there are complaints

Air Quality Management

Regulatory framework

- Contractual environmental obligations
- Règlement sur l'assainissement de l'atmosphère (RAA)

Applicable MDDELCC standards

RAA of MDDELCC	
PMT	**$PM_{2.5}$**
120 ug/m^3	**30 ug/m^3**

Air Quality Management

- General mitigation measures :
  - Transport of materials in dump trucks with tarp covers
  - Appropriate maximum speed for vehicles, to reduce dust emissions on access roads or the jetty
  - Spraying water on surfaces
  - Regular cleaning of the streets used by vehicles and machinery in order to remove any accumulation of movable material and other debris
  - If necessary, application of dust suppressant

- Conduct additional monitoring for sensitive areas

Management of Green Spaces

Requirements :

- The construction of the project requires the clearing of spaces to build the new bridges and road connections, and work site facilities, thus necessitating the removal of shrubs and trees
- The clearance zones are within the project's federal right-of-way

Approach :

- Minimize the cutting of trees, taking worksite imperatives into account
- The removal of shrubs and trees is overseen by the environment management team

Management of Green Spaces

Prior to removing trees :

- Conduct a vegetation survey
- Obtain tree-cutting permits from the municipality
- Relocate brown snakes, if necessary
- Preserve and protect vegetation that is to be saved
- Ensure that contractors are aware of and adhere to the “Environmental Specifications”

After the work :

- Restore the disturbed land
- Reforest in compliance with contractual requirements, including a landscaping plan

Communications with Citizens

- **We are concerned with the well-being of residents and businesses, and we will communicate regularly to ensure sound collaboration and coordination**
- **Public information meetings**
  - Once a year on average, by sector
  - Nuns' Island (8 June) and Verdun / Sud-Ouest (14 September)
  - More to come in the fall : second meeting on Nuns' Island (5 November)
- **Good neighbourly relations committee :** to be set up
- **Our website www.newchamplain.ca is online**
- **Subscribe / contact us at :**
  - Email : info@sslc.ca
  - Phone : (514) 876-1020
  - Twitter : @NOUV_CHAMPLAIN

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View from South Shore